

## **Saint Patrick Hospital and Health Sciences Trauma and Anticoagulation Guideline**

Background: Patients with chronic anticoagulation with Coumadin/warfarin who suffer trauma are at increased risk of CNS hemorrhage. Reportedly, CNS hemorrhage can occur in the seemingly “normal” patient. Rapid identification, rapid evaluation and rapid reversal of anticoagulation may be associated with an improvement in patient outcome.

### **Rapid identification of at risk population occurs as follows:**

At the time of triage, or EMS contact, or at the time of request for transfer from another facility:

- For patients age >65, patients or historians will be asked directly if the patient is on Coumadin/warfarin
- For other patients, if chronic anticoagulation becomes apparent during triage evaluation  
AND
- Any complaint of trauma, including fall from standing position (excluding hospice patients and hemodynamically unstable patients)

### **Rapid evaluation:**

- Patients identified as “at risk population” will be triaged at one level higher acuity than their evaluation otherwise would identify.
- Emergency physicians will maintain a heightened awareness of the risk of CNS hemorrhage, and image the patient as they deem appropriate. A head CT may be ordered by nursing AFTER discussion with the responsible emergency physician even if the physician has not yet seen the patient.

### **Rapid treatment:**

In the event of high clinical suspicion for CNS hemorrhage or (+) CT in the at risk population the rapid reversal protocol detailed below should be instituted. Neurosurgery will be consulted with (+) CT results.

### **Rapid reversal protocol:**

- Hemogram, PT/PTT, INR, type and screen will be sent.
- 2 units universal donor FFP will be thawed and administered in bolus fashion ASAP.
- Vitamin K 10 mg will be administered intramuscularly or subcutaneously.
- Additional FFP will be thawed/ administered in bolus fashion as follows depending on INR to a total target of:
  - INR: 1.50-2.0: 3 units FFP
  - INR: 2.01-3.0: 4 units FFP
  - INR: 3.01- 3.5: 6 units FFP
  - INR: > 3.5: 8 units FFP
- Repeat INR will be sent after infusion of above noted FFP

Referring facilities should be encouraged to treat at risk patients in a similar manner within the limits of their resources.